Erratum: Polarization-resolved extinction and scattering cross-section of individual gold nanoparticles measured by wide-field microscopy on a large ensemble [Appl. Phys. Lett. 102, 131107 (2013)]

Lukas M Payne,[1] Wolfgang Langbein,[2] and Paola Borri[1, a)]
[1)] *School of Biosciences, Cardiff University, Cardiff CF24 3AA, United Kingdom*
[2)] *School of Physics and Astronomy, Cardiff University, the Parade, Cardiff CF24 3AA, United Kingdom*

(Dated: 18 May 2017)

The numerical values of the noise calculated using equation (1) should read $\hat{\sigma}_{\mathrm{noise}} = 166\,\mathrm{nm}^2$ instead of $\hat{\sigma}_{\mathrm{noise}} = 589\,\mathrm{nm}^2$ for the $M = 60$ estimate, and $\hat{\sigma}_{\mathrm{noise}} = 6\,\mathrm{nm}^2$ instead of $\hat{\sigma}_{\mathrm{noise}} = 43\,\mathrm{nm}^2$ for the $M = 150$ estimate. Furthermore, shot noise in the data is a factor of $\sqrt{2}$ larger since the difference between two images I_{f} and I_{d} is used, and an additional factor $\sqrt{4/3}$ larger due to the noise in the background Δ_{b}. The equation (1) should thus read

$$\hat{\sigma}_{\mathrm{noise}} = \frac{\lambda d_{\mathrm{px}}}{M\mathrm{NA}}\sqrt{\frac{6\pi}{N_{\mathrm{a}}N_{\mathrm{fw}}\nu}} \tag{1}$$

yielding $\hat{\sigma}_{\mathrm{noise}} = 271\,\mathrm{nm}^2$ for the green channel, for which we measured $\hat{\sigma}_{\mathrm{noise}} = 590\,\mathrm{nm}^2$. The measured noise is therefore close to shot noise, but still limited by background fluctuations.

[a)] Electronic address:BorriP@cardiff.ac.uk